REMARKS

Status of the Claims

Claims 21-50 are now pending in the application, Claims 1-20 having been previously cancelled, and Claims 21, 22, 30, 36, and 50 having been amended to more clearly define the present invention.

Claims Rejected under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 21-50 as being anticipated by Doyle (U.S. Patent No. 5,838,906) in view of Pratt (U.S. Patent No. 5,564,044). The Examiner asserts that both Doyle and Pratt teach systems allowing one program to call upon another program to perform an operation on a piece of data. The Examiner concludes that it would have been obvious to one skilled in the art, at the time of the invention, to have combined the teachings of Doyle with those of Pratt, to provide a mechanism and a method for integrating first data created by a first application program and residing in a first data file or object belonging to the first application into a second data file or object. Applicants respectfully disagree with the rejection, particularly in view of the amendment to the claims, for the reasons explained below.

In the interest of reducing the complexity of the issues for the Examiner to consider in this response, the following discussion focuses on amended independent Claims 21, 30, 36 and 50. The patentability of each remaining dependent claim is not addressed in detail; however, applicants' decision not to discuss the differences between the cited art and each dependent claim should not be considered as an admission that such dependent claims are not patentable over the cited references. Similarly, applicants' decision not to discuss differences between the prior art and every claim element, or every comment made by the Examiner, should not be considered as an admission that applicants concur with the Examiner's interpretation and assertions regarding those claims. Indeed, applicants believe that all of the dependent claims patentably distinguish over the references cited. However, a specific traverse of the rejection of each dependent claim is not required, since dependent claims are patentable for at least the same reasons as the independent claims from which the dependent claims ultimately depend.

Independent Claim 21

With respect to independent Claim 21, significant differences exist between the combined references of Doyle and Pratt and the invention as defined by Claim 21. Both Doyle and Pratt direct a computer program to a second program by reference to an embedded link or script. In contrast,

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applicants' unique approach employs a service manager to direct the computer program to segments of code. The computer program does not access the segments of code by reference to an embedded link or script. The Examiner asserts that Doyle teaches a design that features a "list of applications," such that an application can be selected to run along with the original program to provide an output using an input that the original program alone would be unable to provide. The Examiner further notes that since the list of applications is initiated by the system, there must exist a service manager as claimed (Office Action, page 3). Yet, there is no teaching or suggestion in the cited art of anything equivalent to a service manager.

The Examiner further acknowledges that although such means are not expressly taught by Doyle, Pratt discloses a design allowing a second program to be called to assist a first program to perform a desired task on data. Pratt states that the system resolves the reference to identify the script, the application program and the operation of the application program to execute the script and invoke the application program to execute the script to generate the result. The Examiner then concludes that the claimed service manager must be present within the design, since its tasks are performed. Again applicants respectfully disagree with this unsupported assertion, since the Examiner has failed to reference any portion of either of the cited references that specifically teaches or suggests any functional component equivalent to a service manager, as recited in applicants' claims.

Also, the Examiner notes that since both Doyle and Pratt teach systems allowing one program to call upon another program to perform an operation on a piece of data, it would have been obvious to one skilled in the art, at the time of the invention, to have combined the teachings of Doyle with those of Pratt, to provide a mechanism and a method for integrating first data created by a first application program and residing in a first data file or object belonging to the first application into a second data file or object. Again, applicants respectfully disagree, for the reasons set forth below.

Applicants have amended independent Claim 21 to further clarify the role of the service manager, since in applicants' claimed method, the computer program is *never coupled to another computer program by a link (as in Doyle), or by a script (as in Pratt),* in order to process an input to obtain an output comprising a type of content that is unknown to the computer program. Instead of an embedded link or script, applicants' invention utilizes a service manager, i.e. a unique data structure, such that the computer program is connected to at least one service container to process the

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input to obtain the output. For example, applicants' invention has the flexibility to enable anything from a dictionary entry to a video to be accessed by any client program module, such as Microsoft Corporation's WORD™ software program for word processing. Thus, a user can access multiple types of content without the client program module having a knowledge of what type of content it is accessing because the client program module does not need to understand the content to be able to display it (see applicants' specification, page 4, lines 20-26), because applicants' service manager can handle an unlimited number of content types (see applicants' specification, page 3, lines 12-13). For example, a service container can be an arbitrary data container and can include a code object, an associated data object, and a loader ID. If one service container has a code object that includes service objects A and B and a different service container has a code object that includes service objects A, C, and D, the loader ID can enable the service manager to access the cache file and instantiate the computer code object and associated data object of the service containers. (See applicants' specification, page 2, line 23 – page 3, line 4.)

In an example provided in applicants' specification, if a user working with a document in WORD™ selects the English word "loves" and desires a French translation, the service manager can create or instantiate a French translation dictionary (see applicants' specification, page 14, lines 10-13) as shown in Figure 3. No link or script in the document is required to access the French translation of the French language dictionary used by the service manager. Applicants' specification explains that translation dictionary service containers can include a code object (that performs language-specific functions), a data object (such as lexical data), and a loader ID (see applicants' specification, page 13, lines 24-27). Thus, the foreign language translation is received into the document without utilizing an embedded link or script to enable the word processing computer program to access a translation program.

Applicants' claimed invention is therefore unlike Doyle's, because Doyle discloses a system that enables a user of a browser program on a computer connected to an open distributed hypermedia system *to access and execute an embedded program object that is embedded into a hypermedia document much like data objects* (see Doyle, Abstract). As explained by this reference, a hypermedia document is a document that is ***linked*** to objects such as graphics, sound, video, or other media capable of being manipulated and presented in a computer system (see Doyle, column 2, lines 17-27). Specifically, the hypermedia document is parsed by the browser client and the browser client detects

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links to data objects. The embedded program link identifies application client as an application to invoke and may include additional information, such as parameters, that tell application client how to proceed such as retrieving and processing a specification as to a data object (see Doyle, column 9, lines 24-39).

In addition, Pratt does not disclose a service manager either, because it is evident that in Pratt, a predefined embedded code in the form of a script is used to interact with another program. Specifically, Pratt relates to a means for integrating data between application programs executing in an integrated operating environment by embedding a reference to first data created by a first application program into second data created by a second application program (Pratt, column 1, lines 12-18). Thus, instead of applicants' claimed service manager being employed by Pratt, as the Examiner asserts, Pratt discloses that a script or a subroutine is employed to enable two programs to interact. Neither cited reference discloses or suggests the use of a service manager like that recited by applicants' claims.

Furthermore, in step(d) of Claim 21, applicants recite that the plurality of segments of computer code and the at least one segment of computer code are not executable as an independent computer program. In contrast, Doyle's and Pratt's application programs are executable as independent computer programs. Accordingly, the combined references of Doyle and Pratt do not disclose all the elements of applicants' Claim 21 and the rejection of Claim 21 should be withdrawn.

Dependent Claim 22

With respect to amended dependent Claim 22, the Examiner asserts that the list of applications (Doyle, column 15, line 14) allows an application to be selected to run along with the original program to provide an output from an input that the original program alone would be unable to provide, as claimed. The Examiner notes that no limitation is given as to how many applications may be selected to run together, so that two or more may be selected (see Office Action, page 4). In addition, the Examiner asserts that Pratt's design also places no limitations on the number of applications that may be run along with the original program (Office Action, page 5).

However, applicants respectfully disagree that Doyle teaches or suggests selecting two or more ***segments of computer code*** to run with the computer program. Applicants disagree that segments of computer code are equivalent to a full software application. Applicants' claim does not say that two or more computer applications run along with the original program. Instead the

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segments of computer code are selected to be combined based upon their functionality and when run with the computer program, enables the computer program to process the input. Nothing in Doyle or Pratt teaches or suggests that segments of computer code be executed with an original computer program. Accordingly, this aspect of the claimed invention is clearly not available to one of ordinary skill in the art cited.

Doyle discloses that a check is made as to whether a type attribute of an object, i.e., the value of the TYPE element of the EMBED tag, is an *application*. If so, a step 290 is executed to launch a predetermined *application* (Doyle, column 15, lines 9-14). In a preferred embodiment of Doyle, an *application* is launched according to a user-defined list of application type/application pairs. An application can be executed in a stand alone manner, while applicants' recited segments of computer code cannot. So, it is clear to applicants that Doyle does not disclose that two or more segments of computer code are combined and executed with a computer program. Also, Doyle does not teach selecting segments of computer code for combination with a computer program, based upon the function provided by each segment of computer code.

Similarly, as shown in FIGURE 1 of Pratt, the reference specifically refers to providing means for integrating first data created by first application program and residing in a first data file or an object belonging to the first application into a second data file or an object belonging to a second application, into a second data file (see Pratt, column 4, lines 42-48). Thus, there is no express or implied teaching that two or more segments of computer code be combined and executed by a computer program to enable the computer program to process an input that is not known to the computer program. Thus, Doyle and Pratt do not teach or suggest all the claimed limitations of Claim 22, and the rejection of Claim 22 should be withdrawn.

Rejection of Dependent Claim 24

With respect to Claim 24, the Examiner asserts that Doyle discloses how applications can be started as child processes and references column 15, line 22 of Doyle as teaching applicants' claimed recitation of "configuring the at least two segments of computer code into a master-slave relationship that causes the execution of one of the at least two segments of computer code to be dependent on the execution of another of the at least two segments of computer code." Since Doyle does not disclose selecting at least two segments of computer code with a service manager, it is not surprising that Doyle cannot teach a master-slave relationship of the at least two segments of computer code. The

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citation in Doyle that the Examiner references states that the external application is started as a child process of the current running process (Mosaic). However, Mosaic is part of the browser client process (i.e., a computer program) and is not part of at least two segments of computer code, as recited in Claim 22, on which Claim 24 depends. The master-slave relationship that applicants claim encompasses the at least two segments of computer code; whereas, the master-slave relationship applicants claim does not encompass a computer program (Mosaic) and an external application. Thus, Doyle and Pratt do not teach or suggest the recitation of Claims 24, and the rejection of Claim 24 should be withdrawn.

Independent Claim 30, Claim 36, and Claim 50

With regard to amended independent Claim 30, Claim 36 and Claim 50, applicants have clarified the recited computer system for accessing multiple types of electronic content, the computer-readable medium having computer-executable instructions for accessing multiple types of electronic content, and a method for accessing multiple types of electronic content from a program. These claims clearly distinguish over Doyle and Pratt for reasons similar to those discussed above in connection with the traverse of the rejection of Claim 21. Thus, Claim 30, Claim 36, and Claim 50 are patentably distinguishable over the cited references for substantially the same reasons as discussed above. Because dependent claims are considered to include each element/step of the independent claim from which they depend, each claim respectively ultimately depending on independent Claims 21, 30, 36, and 50 are patentable for at least the same reasons as these independent claims. Accordingly, the rejection of Claims 21-50 under 35 U.S.C. § 103(a) over Doyle and further in view of Pratt should be withdrawn.

In view of the amendments and Remarks set forth above, it will be apparent that the claims in this application define a novel and non-obvious invention, and that the application is in condition for allowance and should be passed to issue without further delay. Should any further questions remain, the Examiner is invited to telephone applicants' attorney at the number listed below.

Respectfully submitted,

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